use of Ka-band spectrum. However, if sharing is unworkable, the Commission should be prepared to require LMDS operations to move to the 40 GHz band.

E. The Commission Should Request Supplemental Comments After the Conclusion of WRC-95

GE Americom agrees with the Commission's observation that the decisions to be made during WRC-95 could have a significant effect on the feasibility of the Commission's Ka-band proposals. *Notice* at 26. The Commission requests comment on what contingency plans might be appropriate at this stage, pending action on the WRC-95 proposals

GE Americom believes that it would be premature and inefficient to attempt to develop contingency plans at this time. The issues to be addressed at WRC-95 are complex and inter-related, and it will be difficult, if not impossible, for parties to anticipate the range of potential actions and develop alternative proposals accordingly. Instead, GE Americom suggests that the Commission request supplemental comments on these issues after WRC-95 is concluded.

IV. THE COMMISSION SHOULD ADOPT ITS PROPOSAL TO USE EXISTING PART 25 RULES AS A FRAMEWORK FOR KA-BAND GSO/FSS SERVICE

GE Americom agrees with the Commission that the current Part 25 rules provide an appropriate framework for Ka-band GSO/FSS operations.

Specifically, the Commission should adopt its proposal to implement 2 degree orbital spacing in the Ka-band. In addition, the Commission should explore the possibility of 1 degree spacing. Hughes has suggested that 1 degree

spacing may be feasible if Ka-band satellites provide service to distinct geographic areas.[4] If Hughes' predictions prove correct and 1 degree spacing can be employed, that will allow the Commission to accommodate even more GSO/FSS systems in this spectrum. In addition, the Commission should permit the establishment of hybrid satellites incorporating Ka-band transponders under the standards currently applicable to C- and Ku-band hybrids.

Finally, the Commission should require strict adherence to the existing Part 25 financial qualification requirements. The Commission has long recognized that rigid financial standards are necessary in the satellite area to deter speculation and warehousing of spectrum.[5] The capital requirements to construct, launch and operate spacecraft are substantial. The licensing and assignment of orbital slots to applicants who cannot meet these requirements only results in a delay of service to the public. Accordingly, the Commission must require Ka-band applicants to demonstrate their ability to meet the Commission's financial standards in order to be considered for Ka-band orbital locations.

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[4] Hughes states that "[t]o the extent that adjacent Ka-band satellites proposed in the future would serve spatially separated areas, it is possible that each of those satellites could use the same parts of the Ka-band and be located either at the same location, or as close as 1 degree away from each other." Amended Application of Hughes Communications Galaxy, Inc., File Nos. 3/4-DSS-P/LA-94, CSS-94-021 through CSS-94-025, at 7 n.1 (July 26, 1994).

[5] *See, e.g., Licensing Space Stations in the Domestic Fixed-Satellite Service,* 50 Fed. Reg. 36071, 36072-73 (1985).

V. AUCTIONING OF SPECTRUM FOR FSS/GSO SERVICE SHOULD NOT BE REQUIRED

In the *Notice*, the Commission indicates that it is too early to determine whether applications in the GSO/FSS service should be subjected to spectrum auctions. *Notice* at 49. GE Americom believes that the Ka-band will accommodate all qualified GSO/FSS applicants, making auctioning of spectrum unnecessary. However, if the Commission does auction spectrum for this service, it must adopt its proposed steps to deter speculation.

A. Mutually Exclusive GSO/FSS Applications Are Unlikely

The Communications Act allows the Commission to grant spectrum licenses through auctions only as a last resort. Section 309(j)(1) of the Communications Act, as amended, gives the Commission authority to grant spectrum licenses through use of a competitive bidding process. 47 U.S.C. 309(j)(1). The provision, however, restricts spectrum auctions to situations in which, *inter alia*, the Commission accepts mutually exclusive applications for filing. *Id.* Further, as the Commission notes, the Act requires the Commission to try to avoid finding that applications are mutually exclusive, such that an auction would be allowed, by using "engineering solutions, negotiation, threshold qualifications, service regulations and other means." *Notice* at 49 (quoting 47 U.S.C. § 309(j)(6)(E)).

Further, given the Commission's goal of "disseminating [Ka-band satellite] licenses among a wide variety of applicants," *Notice* at 48, it should be

especially reluctant to auction Ka-band satellite spectrum. As the Commission observes, the statutory remedy of competitive bidding may tend to favor wealthy applicants absent appropriate safeguards. Furthermore, the Commission's ability to establish adequate and fair safeguards for all applicants is problematic, will require considerable Commission resources and is likely to result in protracted litigation, all of which could delay the use of the Ka-band by the public. *See Notice* at 67-69.

The Commission has long held that orbital locations in the same portion of the geostationary orbital arc do not differ significantly for assignment purposes. [6] Thus, as the Commission has recognized, satellite applications in the Ka-band should not be deemed mutually exclusive unless there is not "a sufficient number of orbit locations to accommodate all qualified applicants." *Notice* at 52.

That is quite unlikely. The number of orbital slots available for systems operating in the Ka-band depends on both the spacing between satellites and the minimum elevation angles required for the proposed applications. Assuming an orbital spacing of 2 degrees, as currently required for C- and Ku-band satellites, 47 C.F.R. § 25.140(b)(3), as well as full use of the available spectrum by the satellite at each orbital slot, GE Americom estimates that a conservative look

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[6] *See, e.g., Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service*, 3 FCC Rcd 6972, 6972 ("We have consistently held that applicants' requests for particular orbital locations do not limit our flexibility to assign orbital locations that best serve the public interest. Variations in the characteristics of different orbital locations in the same portion of the geostationary orbital arc are not significant for assignment purposes, nor do requests by different applicants for the same orbital location give rise to comparative hearing rights.")

angle of 20 degrees would result in 22 potential usable orbital positions. *See* Table 1. Likewise, a less conservative look angle of 10 degrees would result in 36 potential orbital positions. *Id.* Based on the 16-degree look angle provided for government fixed satellite positions outside the arc 70 degrees W.L. to 120 degrees W.L., [7] GE Americom estimates that there are 26 potential orbital positions available for satellites operating in the Ka-band.[8] Given these assumptions, GE Americom believes that the Commission will be able to accommodate all qualified applicants.

Table 1

Minimum Required Look Angle	**Eastern Most Position Meeting CONUS Requirements**	**Western Most Position Meeting CONUS Requirements**	**Number of Available 2° Orbital Positions**
25°	86° W.L.	108° W.L.	12
20°	77° W.L.	117° W.L.	22
15°	69° W.L.	124° W.L.	28
10°	61° W.L.	132° W. L.	36

[7] *See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum for the Fixed-Satellite Service in the 17.8-20.2 GHz Band for Government Use*, FCC 95-316 (rel. July 31, 1995), at ¶ 3; App. at 4.

[8] Even more satellite applicants could be accommodated in the Ka-band if, as Hughes suggests in its amended application, it is possible to co-locate some satellites in the Ka-band or employ 1 degree spacing. Likewise, more satellite applicants could be accommodated in the band than indicated in Table 1 if, as PanAmSat believes, it is possible to offer a viable Ka-band service from an orbital location outside full-CONUS coverage, which would result in minimum required look angles lower than those shown in Table 1. *See* Amended Application of PanAmSat Licensee Corporation, File No. 117-SAT-AMEND-95 (filed Apr. 17, 1995).

B. If Auctions Are Used, the Commission Must Take Steps to Deter Speculation

In the event the Commission determines that it has no choice but to grant Ka-band satellite license applications through competitive bidding, Americom agrees with the Commission that steps should be taken to prevent speculation and unjust enrichment in the bidding process.

As indicated, such steps should include vigorous application of the Part 25 financial qualification rules to Ka-band satellite applications. In addition, the Commission should implement procedures to discourage default after the conclusion of bidding. *Notice* at 60. Further in the interest of preventing unjust enrichment, GE Americom supports adoption of the Commission's proposed transfer disclosure requirements for designated entities and for other parties that obtain licenses to operate in the Ka-band through a competitive bidding process. *Id.* at 62-63. In addition, the Commission should strictly adhere to construction and launch performance requirements for GSO/FSS licensees *Id.* at 63. This will help the Commission ensure that spectrum auctions are not viewed as a "get rich quick" scheme by speculators.

CONCLUSION

GE Americom urges the Commission to take the steps outlined above to ensure that sufficient unencumbered spectrum is available for GSO/FSS in the Ka-band. In particular, further evaluation of the potential for sharing spectrum among potential Ka-band licensees is needed. The Commission must resolve these

issues so that GSO/FSS providers can begin the process of initiating Ka-band service in order to alleviate current shortages in the satellite services market.

Respectfully submitted,

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September 7, 1995

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Comments of GE American Communications, Inc." were served by hand delivery this 7th day of September, 1995 to:

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